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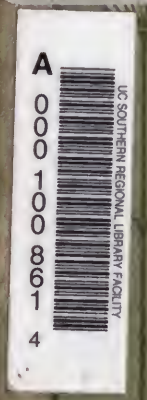

THE DRAMA OF GLASS

BY

KATE FIELD

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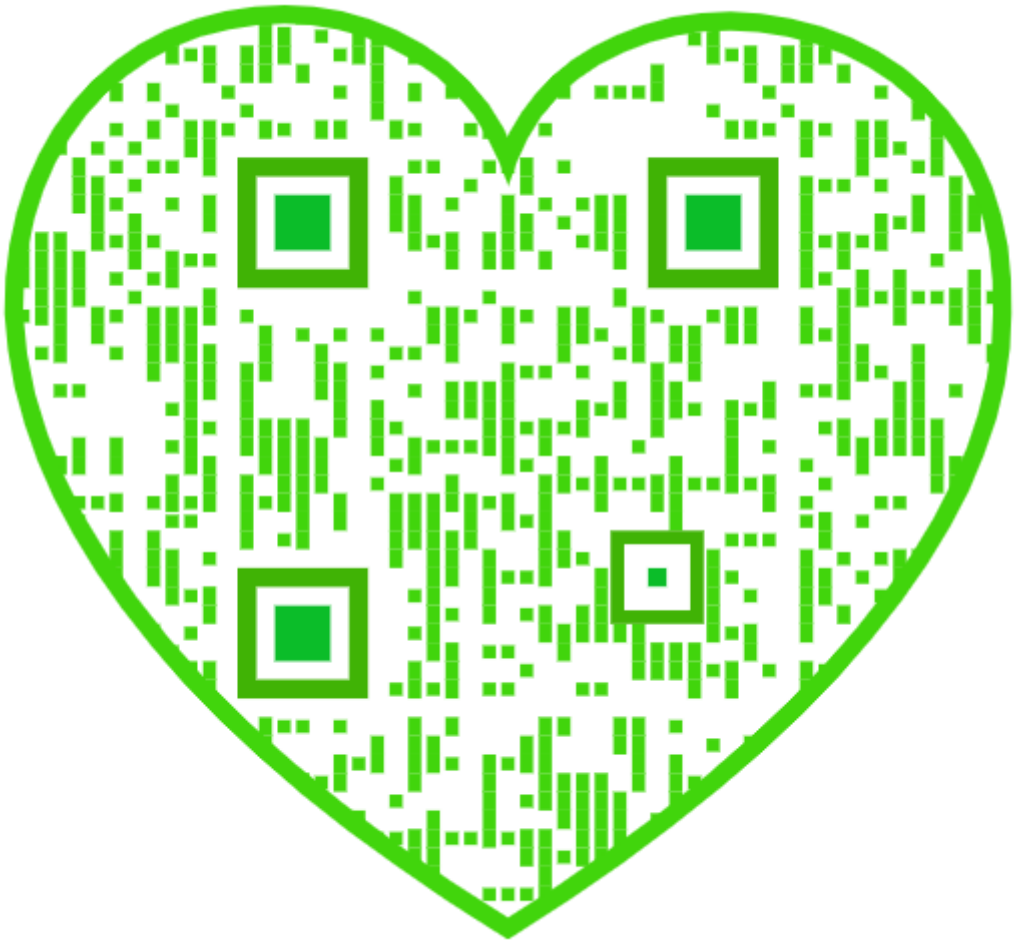

KATE FIELD

THE DRAMA OF GLASS

BY
KATE FIELD

PUBLISHED BY THE
LIBBEY GLASS CO.

The Drama of Glass was an inspiration born in the brain of Kate Field, as she watched the busy workmen, who with trained eyes and skillful hands, wrought out the products of one of America's great industries that found a temporary home in the World's Fair at Chicago.

It is an addition to the long list of brilliant writings of this versatile woman, whose literary labors have made her memory so dear to the thousands of Americans who have found in them the reflection of her own individuality.

The story of an art that is as old as the building of the City of Babylon, that formed a part in the life of Egypt, that was interwoven in the history of Rome, and that

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gave a reputation to a nation, is re-told by Miss Field.

From the beginning of the art, wrapped in mystery and legend, step by step her story has become history. She has carried it as far as the World's Fair, and it has devolved upon Mr. Thos. M. Willey to complete what she so well begun.

PROLOGUE

HAVE you ever thought what a drama glass plays in the history of the world? It is a drama even in the French acceptation of the word, which infers not only intense action, but death. Can there be more intense action than that of fire, and is not glass the own child of fire and death?

The origin of glass is lost in myth and romance. Nobody knows how it was born, but there are as many traditions as there are cities claiming to be Homer's birthplace. Pliny says that the discovery of glass was due to substituting cakes of nitre for stones as supports for cooking pots.

According to his story, certain Phœnician merchants landed on the coast of Palestine and cooked their food in pots supported on cakes of nitre taken from their cargo.

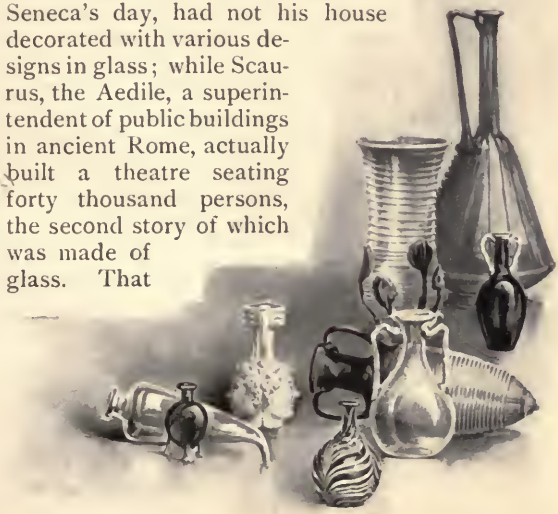
Great was the wonder of these Phœnicians—the Yankees of antiquity, the builders of Tyre and Sidon, the inventors of the alphabet—on beholding solid matter changed to a strange fluid, which voluntarily mingled with its nearest neighbor, the sand, and made a transparent material now called glass.

This story is too pretty to spoil, and those of us who prefer romance to science will believe it, though Menet the chemist positively declares that to produce such a fluid would require a heat from 1800 to 2700 degrees Fahrenheit. Under the circumstances narrated by Pliny, such

a tremendously high temperature was impossible. Science often interferes with romance, and were not truth better even than poetry, science would be a nuisance in literature.

An art that Hermes taught to Egyptian chemists like good wine needs no bush, yet on its brilliant crest may be found the splendid quarterings not only of Egypt, but of Gaul, Rome, Byzantium, Venice, Germany, Bohemia, Great Britain, and last but not least the United States.

He was a poor man, who, in Seneca's day, had not his house decorated with various designs in glass; while Scaurus, the Aedile, a superintendent of public buildings in ancient Rome, actually built a theatre seating forty thousand persons, the second story of which was made of glass. That



masterpiece of ancient manufacture, the Portland Vase, was taken from the tomb of the Roman Emperor Alexander Severus, and should bear his name rather than that of the Duchess of Portland, who purchased it from the Barberini family after it had stood three hundred years in their famous Roman gallery.

In the thirteenth century Venice reigned supreme in glass making. No one knows how long the City of Doges might have monopolized certain features of this art but for a woman who could not keep a secret from her lover. Marietta was the daughter of Beroviero, one of the most famous glass makers of the fifteenth century. Many were his receipts for producing colored glass, and as he had faith in his own flesh and blood he confided these precious receipts to his daughter. Alas, for poor Beroviero! Marietta, after the manner of women, loved a man,

one Giorgio, an artisan in her father's employ. History does not tell, but I have no doubt that Giorgio wheedled the secret out of his sweetheart.

Once possessed of these receipts he published and sold them for a large sum, then turning on the man he had betrayed he demanded faithless Marietta in marriage. Thus it came to pass that the ignoble love of a weak woman for a dishonorable man helped to change the fortunes of Venice. The world gained by the destruction of a monopoly, one more

proof of the poet's dictum that "all partial evil is universal good."

It was in the middle of this same fifteenth century that a number of Venetian glass makers were imprisoned in London because they could not pay the heavy fine imposed by the Venetian Council for plying their art in foreign lands. "Let us work out our fine," pleaded these victims of prohibition. Their prayer was warmly seconded by England's king, whose intercession was by no means disinterested. Yielding to royal desire, Venice freed these artisans, and thus glass making was established in Great Britain. Beyond the point of reason all prohibitory laws fail sooner or later. Go to the bottom of slang, and as a rule you will find it based on rugged truth. When in the breezy vernacular of this republic a human being is

credited with "sand" or is accused of being entirely destitute of it, he rises to high esteem or falls beneath contempt. Possessing "sand" he can command success; without it he is a poor creature. For the origin of this slang we turn to glass making, the excellence of which depends upon sand.

If Bohemia succeeded finally in making clearer and whiter glass than Venice, it was because Bohemia produced better sand. When the town of Murano furnished the world with glass, its population was thirty thousand. That number has dwindled to four thousand. Bohemian glass stood unrivaled until England discovered flint or lead glass; now, the world looks to the United States for rich cut glass, the highest artistic expression of modern glass.

Where does America begin its evolution in glass? Before the landing of the Pilgrims at Plymouth Rock. In 1608, within a mile of

the English settlement of Jamestown, Virginia, a glass house was built in the woods. Curiously enough it was the first factory built upon this continent. This factory began with bottles, and bottles were the first manufactured articles that were exported from North America.

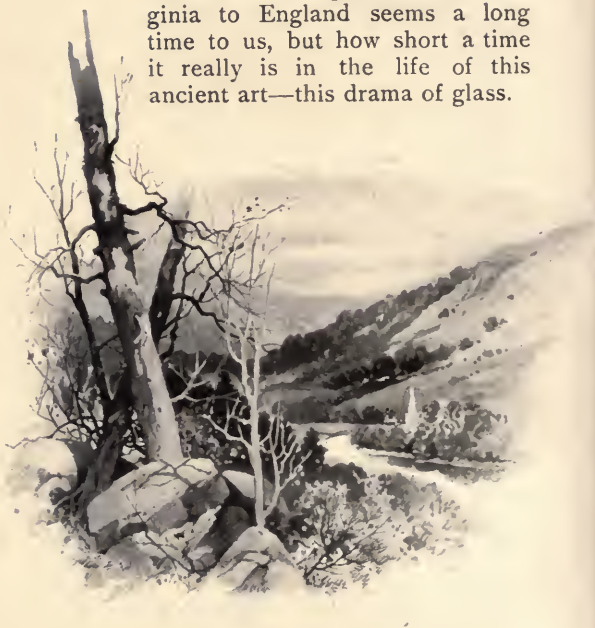
In those early days glass beads were in great demand. Indians would sell their birthright for a mess of them, so when the first glass house fell to pieces, a second took its place for the purpose of supplying the Indians with beads.

A few years later common glass was made in Massachusetts. It appears from the records of the town

of Salem that the glass makers could not have been very successful, as that town loaned them thirty pounds in money which was never paid back.

During the time of the Dutch occupation of Manhattan Island, when New York was known as New Amsterdam, a glass factory was built near Hanover Square, but not until after the Revolution came and went did glass making really take root in American soil. In July, 1787, the Massachusetts Legislature gave to a Boston glass company the exclusive right to make glass in that State for fifteen years. This company prospered and was the first successful glass manufacturing company in the United States. Then followed others that were successful. As early as 1865 there was manufactured, in the vicinity of Boston, glass that was the equal of the best flint glass manufactured in England. Two hundred and fifty

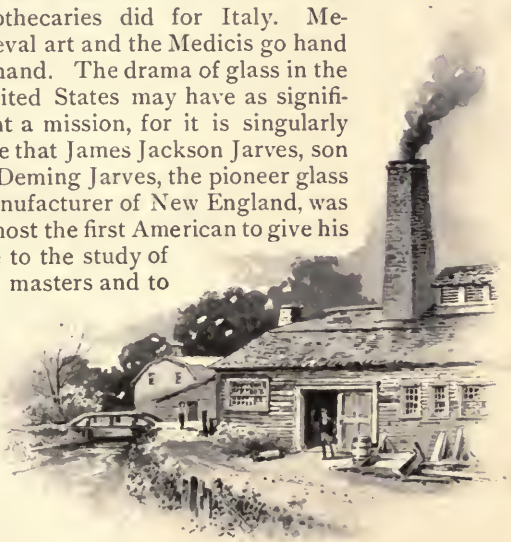
years from the time the first rough bottles were exported from Virginia to England seems a long time to us, but how short a time it really is in the life of this ancient art—this drama of glass.



FROM 1850 TO 1893

AN EVOLUTION IN GLASS

It is always interesting to trace the history of a great industry. Like the oak, it begins with a small seed that hardly knows its own mind, and is often more surprised than the rest of the world at the result of earnest effort. See what apothecaries did for Italy. Mediæval art and the Medicis go hand in hand. The drama of glass in the United States may have as significant a mission, for it is singularly true that James Jackson Jarves, son of Deming Jarves, the pioneer glass manufacturer of New England, was almost the first American to give his life to the study of old masters and to



devoté his fortune to collecting their works. The Jarves gallery now belongs to Yale University.

William L. Libbey was born in Portsmouth, New Hampshire, and became, in 1850, the confidential clerk of Jarves & Commeraiss, the greatest glass importers of Boston, and whose glass factory in South Boston was the forerunner of the Libbey Works of the Columbian Exposition. Having made a fortune—the fortune his clever son spent in art and *bric-a-brac*—Deming Jarves sold his glass factory to his trusted clerk in 1855, and for twenty years this Massachusetts industry gained strength and reputation. But the trend of population was westward.

Cheap fuel was necessary to successful glass making. How could New England coal compete with natural gas? So Ohio came to the front. A few years ago Ohio's natural gas became exhausted. Without a day's disturbance petro-

leum succeeded gas, and better glass was made than ever, because oil produces a more even temperature. Verily "there is a soul of goodness in things evil." From Massachusetts to Ohio, from coal to gas, from gas to petroleum, what would be the next act in the drama of American glass? What, indeed, but an act the scene of which was laid in the grounds of the World's Fair!

Believing fully in the westward course of empire, Mr. Edward D. Libbey had the inspiration that if Chicago wanted the World's Fair, Chicago would not only have it, but would create such an exposition as had never been seen. So before even the temporary organization was formed in Chicago the Libbey Glass Company filed an application for the exclusive right to manufacture glass at the Columbian Exposition.

The problem of erecting a building that should be architecturally

in keeping with the surroundings, that should afford every possible comfort to the thousands of daily visitors and still be used as a manufactory, was not an easy matter.

Begun in October, 1892, the admirable building, put up in the Midway Plaisance to show the process of making glass, was finished one week before May 1st following. On that bleak opening day thousands of overshoes were stalled in mud a foot deep before the Administration Building, and the owners went home in some cases almost barefooted.

But there was an expenditure of $125,000 in an idea, and the investors had no reason to fear

weather or neglect. From the opening to the closing of the big front door two million people found their way to this glass house, at which no one threw stones. The trouble was not to get people in, but to keep them out. A mob never benefits itself nor anybody else. To reduce the attendance to reasonable proportions a fee was charged, applicable to the purchase of some souvenir, made perhaps before the buyer's very eyes. Why was this glass house so popular? Because its exhibit displayed the only art industry in actual operation within the Fair grounds.

All people like machinery in motion, and the most curious people on earth are Americans. They want to know how things are made, and, like children, are not content until they have laid their hands on whatever confronts them. "Please do not touch" has no terrors for them. In addition to this inborn love of action, there is a fascination

about glass blowing and the fashioning of shapeless matter piping hot from the pot that appeals to men and women of all sorts and conditions. With eyes and mouths wide open, thousands stood daily around the circular factory watching a hundred skilled artisans at work. They looked at the big central furnace, in which sand, oxide of lead, potash, saltpetre and nitrate of soda underwent vitrification; they saw it taken out of the pot a plastic mass, which, through long, hollow iron tubes, was blown and rolled and twisted and turned into things of beauty. Here was a champagne glass, there was a flower bowl; now came a decanter, followed by a jewel basket. A few minutes later jugs and goblets and vases galore passed from the nimble fingers of the artisans to the annealing oven below.

All these creations entered the oven as hot as they came from the last manipulator, but gradually

cooled off to the temperature of the atmosphere. Getting used to the hardships of life requires twenty-four hours, during which the trays on which the glass stands are slowly moved from the hot to the temperate end of the oven. This procession was an object lesson in life as well as in glass. "Make haste slowly or you'll defeat yourself," was the burden of the song those things of beauty sang to themselves and to all who listened.

If American cut glass has grown beyond compare, it is largely due to the superior intelligence of American artisans. They have the "sand"; so, too, have the beautiful hills of Berkshire County, Massachusetts, whence comes the purest quality the whole world has known. The best flint glass exhibited at the Paris Exposition of 1867 owed its excellence to the treasure stowed away in Western Massachusetts.

The finest American flint glass of

the Columbian Exposition found its inspiration in the same part of the old Bay State.

Little did those visitors to the Fair know whence came the hot fires of Libbey's Glass House. They little knew that oil was drawn in pipes from Ohio, and that one hundred and fifty barrels of petroleum lay buried under innocent-looking grass, that looked up and asked not to be trodden under foot.

Of course, had lightning struck those two great hidden tanks of liquid dynamite, we should all have been sent to that bourne whence no World's Fair visitor could have returned.

Seventy-five barrels of oil were burned daily on the Midway Plaisance. How many gallons? Three thousand. Multiply one day's fire by one hundred and eighty days and you discover that the drama of glass at the Fair was the death of fifty-four thousand gallons of petroleum.

EPILOGUE

THE ACTRESS AND THE INFANTA

GEORGIA CAYVAN

Ever since the era of fairy tales the world has heard of glass slippers. Cinderella wore them and great was the romance thereof. But whoever before 1893 heard of a glass dress, and who conceived such a novel idea?

From that memorable day in the Garden of Eden when Eve ate that apple, which may literally be called the fruit of all knowledge, woman has been at the bottom of everything; it was a women who got it into her head that she wanted a glass dress. How did it happen? Thus: In the middle of May, 1893, women from all parts of the earth took Chicago by storm. Theirs was the first of one hundred congresses, and among

many artists was Georgia Cayvan, whose record on and off the stage does credit to her head and heart. Of course the clever actress visited the Fair and of course she followed the multitude and found herself watching the process of making American glass. It was not long before Miss Cayvan's quick eye was attracted by an exhibit of spun and woven glass lamp shades.

"Do you mean to say those shades are spun out of glass?" she exclaimed; "the material resembles silk."

"Nevertheless it is glass," replied the attendant.

"Is it possible to make a glass dress?"

"Why not? It is not only possible but eminently feasible."

"Would it be very expensive?"

"Twenty-five dollars a yard."

This was a deal of money to invest in an ex-

periment, as at least twelve yards are needed for a gown, but when a woman wills she wills, especially when she is intimately acquainted with her own mind. Miss Cayvan knows hers perfectly, and in a few minutes she exacted from the Company a promise not only to spin her many yards of glass cloth for a white evening costume, but she obtained from them the exclusive right to wear glass cloth on the stage. "It is agreed," said actress and manufacturer in chorus. and off hied the former to New York, where at the end of four weeks she received her material direct from the Midway Plaisance. How to make it up was the next question, for Madame la Modiste vowed she wouldn't touch such material with scissors and needles.

As a matter of fact a specialist is needed to cut and sew glass, which differs from other cloths in breaking and wickedly sticking into the hands, so a skilful and

INFANTA EULALIA

artistic young woman employee from Toledo was sent to New York to do what the ordinary seamstress could not. She cut and made the unique costume with which Miss Cayvan sweeps the stage to the edification of feminine and the wonder of masculine eyes.

The fame of that glass gown reached the ears of the Infanta Eulalia, who saw it worn by the ingenious actress and determined to inspect its counterpart set up in a case at the World's Fair. The Midway Plaisance was the Princess's favorite resort in Chicago, and she soon turned her steps toward the glass house she had heard so much about. "Where's that dress?" asked the Infanta as she entered the factory. On being conducted to it Eulalia expressed great pleasure, declaring it was the finest thing she had seen at the Fair.

"Would Your Highness wear such a gown were one made expressly for you?" she was asked.

"Not only would I wear it, but I'd take the greatest delight in telling the story of its manufacture," replied the Princess.

Before sailing away to Spain, Eulalia was fitted for her American glass gown, now wears it, and to-day there hangs in the Libbey Glass Company's private office the following official certificate:

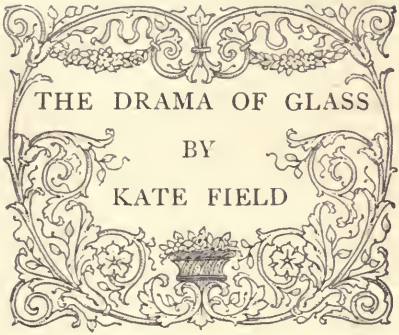
ROYAL HOUSE OF H. R. H. INFANTE DON ANTONIO DE ORLEANS

H. R. H. Infante Antonio de Orleans appoints Messrs. Libbey and Company of Toledo, Ohio, cut-glass makers to his royal house, with the use of his royal coat-of-arms for signs, bills and labels. In fulfillment of the command of His Royal Highness I present this certificate, signed in Madrid, July 15th, 1893.

PEDRO JOVER FOVAR

Superintendent of His Royal Highness's Household

Thus for the first time in the history of an industry almost as old as humanity, glass adorns alike the person of a Royal Princess and the person of a charming actress. Produced at the Court of Spain and on the American stage, am I not justified in calling this memory of a far and near past "The Drama of Glass"? KATE FIELD


THE DRAMA OF GLASS
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In every story told of the sights worth seeing at the Columbian Exposition the factory of the Libbey Glass Company, of Toledo, Ohio, has had an important part. It was more than a mere exhibit; it was a practical education in the art of glass making, which, like an easy lesson that follows step by step, from the mixing of the crude material to the completion of the finest piece of cut glass, impressed itself upon the minds of hundreds of thousands of visitors.

Recall in your memory your visit to the World's Fair in 1893. Place your-

self upon the Midway Plaisance, directly opposite the Woman's Building. Does your mind picture a stately, beautiful building, with central dome and graceful towers? This was the building of the glass factory to whom the exclusive right to manufacture and sell its products was awarded over many competitors by the Ways and Means Committee of the World's Columbian Exposition. This concession was given because the plan of the Libbey Glass Company was a plan of broad ideas, fully meeting the requirement that America should show that the whole world followed her in the manufacture of cut glass.

How well that Company fulfilled its mission is known to the two million visitors who passed under the deep-recessed semicircular archway, rich with sculptured ornament, that covered the grand entrance to this palace; within, it was like a theatre, where the scenes in the

beautiful drama of glass were ever changing. Do you remember that the sides, the dome, the ceiling, were all glitter and sheen with the products of this mystic art, and that from thousands of cut-glass pieces, as from brilliant diamonds, sparkled the prismatic hues?

Do you remember the roaring furnace a hundred feet high, the melting pots made of the clays of the Old and the New Worlds, mixed by the bare feet in order that they have the requisite consistency? The products of this factory were born of fire. The plastic molten mass that came from the melting furnace, with its heat of 2200 degrees Fahrenheit, was thirty hours before a mixture called by glass makers a "batch," whose chief ingredient was sand from the hills of Massachusetts.

Did you watch the workmen—the "gatherer" and the "blower," with their long, hollow iron pipes? How the "blower," with his trained

fingers, gave an easy, constantly swaying motion to the pipe, into which he blew and expanded the hot glass at its end? The tempering oven, through which all glass productions must pass before they will resist changes in temperature or even stand transportation? Did you follow the process of cutting glass; see the wheels like grindstones, driven by steam power? Wheels of stone that come from England and Scotland, and carry with them the old-country names of Yorkshire Flag, New Castle and Craigleith, stones that are very hard and close-grained, capable of retaining a very sharp edge? Wheels of iron, which are used to cut the design in the rough; wheels of wood, cork, felt, and revolving brush wheels, used in finishing and polishing? Did you know that the trained eye of the cutter and his experience were the only guides he had to secure the requisite depth to his cutting; that he must exer-

cise great care and judgment, else the vibration of the glass renders it extremely liable to break, and that an intricate design requires many days of constant manipulation?

Did you watch with interest the making of glass cloth, see how the thread of glass was drawn out and wound on the big wheels that revolved hundreds of times a minute? How the glass thread was woven with the silk thread, producing a pliable glass cloth of soft sheen and lustre, that could be folded, pleated and handled in all ways like cloth?

Do you recall the Crystal Art Room? Did you realize that under that ceiling, bedecked with ten thousand dollars' worth of spun glass cloth, was collected the finest display of cut glass the world had ever seen? Do you remember an old glass punch bowl, used in 1840 by Henry Clay, and that near this relic of ancient glassware was an-

other punch bowl upon which five hundred dollars' worth of labor had been bestowed?

Did you mark the difference, the deep and brilliant cuttings, how effective they were, how they brought out the beauty and richness of the design? Then, when you examined the hundreds of other articles, the sherbet and punch glasses in Roman shapes, the quaint decanters in Venetian forms, the celery trays, flower vases, and the ice-cream sets and cut-glass dishes for every use, you saw the clearness of the glass itself, and that this deep and brilliant cutting of perfect design, that brought out the beauties of the

great punch bowl, was a marked characteristic of the Libbey Cut Glass. Did you not, as an American, feel proud of the progress that your countrymen had made in this old art of glass making?

Since the World's Fair at Chicago, two expositions of the industries of this country, the San Francisco Midwinter Fair and the Atlanta Exposition, have added to the honors and reputation of the cut glass of the Libbey Company. Certain trade-marks and names on silver and china are always looked upon with pleasure and with a feeling that the possessor has the genuine article.

The same thing applies to cut glassware, so as a protection to the public against those who would profit by the reputation of others, the Libbey Glass Company cut their trade-mark—the name Libbey with a sword under it—upon every piece of glass they manufacture.

Half a century in the life of America has added much to the art upon whose brilliant crest, as Miss Field has said, may be found the splendid quarterings of Egypt, Rome, Venice, Germany and Great Britain, and to-day the United States stands unrivaled in the manufacture of cut glass.

The honor conferred upon the Libbey Glass Company by the committee, in granting to them the exclusive concession to manufacture and sell American glassware within the grounds of the Exposition during the World's Fair, was a great one.

The honors conferred by the San Francisco and Atlanta Expositions are but added proofs that the selection was a proper one. The Libbey Glass Company thus stands to-day to represent the best the United States produces in cut glass, and the best the United States produces is the world's best.

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